Course guide
804347 - AAV-A - Advanced Animation

Unit in charge: Image Processing and Multimedia Technology Centre
Teaching unit: 804 - CITM - Image Processing and Multimedia Technology Centre.
Degree: BACHELOR'S DEGREE IN DESIGN, ANIMATION AND DIGITAL ART (Syllabus 2017). (Optional subject).
Academic year: 2022 ECTS Credits: 6.0 Languages: Catalan, English

LECTURER

Coordinating lecturer: Fonts González, Elisabet

PRIOR SKILLS

Learning of new contents through theory, references and practical examples.
Participative classroom where to resolve problems and discuss contents.
Practical exercises to apply and experiment with the contents of the course. They will be used to work during the week and improve the skills to master the 3D design and animation tools.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUOTES

Specific:
CEAAD 3. Master the wide range of professional tools in the sector for developing all kinds of digital content.
CEAAD 7. Apply advanced modelling and animation, post-production and special effects techniques in the development of digital content and/or its inclusion in professional fields of digital art such as the film and video game industries.

Transversal:
04 COE. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.
05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.
06 URI. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.
07 AAT. SELF-DIRECTED LEARNING. Detecting gaps in one's knowledge and overcoming them through critical self-appraisal. Choosing the best path for broadening one's knowledge.
03 TLG. THIRD LANGUAGE. Learning a third language, preferably English, to a degree of oral and written fluency that fits in with the future needs of the graduates of each course.

TEACHING METHODOLOGY

Exhibition and learning of new contents through theory, references and practical cases.
Participatory class where to develop activities for the resolution of problems and discussion of contents.
Practical work to apply and experiment with the contents seen in class. Exercises will be proposed to work during the week and improve the experience necessary to master the 3D design tools.
LEARNING OBJECTIVES OF THE SUBJECT

- Mostrar comprensión de los conceptos básicos y de los procedimientos implicados en la animación 2D y 3D, así como de los fundamentos matemáticos y físicos.
- Mostrar capacidad de análisis del movimiento en objetos, seres humanos y animales y capacidad de aplicar las técnicas de animación por ordenador y sus fundamentos matemáticos y físicos en animación 2D y 3D.
- Mostrar conocimiento y dominio de los procedimientos, de las técnicas, de las tecnologías y de los programas informáticos gráficos y capacidad para seleccionar el más adecuado en cada caso y para aplicarlos, en el proceso de composición y animación de objetos y personajes 2D y 3D en la creación de secuencias audiovisuales y videojuegos.
- Mostrar conocimiento de las fases de creación de una película 2D o 3D y capacidad para planificar el proceso.
- Aplicar recursos de audio.
- Analizar las técnicas utilizadas en los diferentes tipos de producciones audiovisuales para aplicarlas posteriormente mediante el uso de software.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Guided activities</td>
<td>16,0</td>
<td>10.67</td>
</tr>
<tr>
<td>Hours large group</td>
<td>18,0</td>
<td>12.00</td>
</tr>
<tr>
<td>Self study</td>
<td>90,0</td>
<td>60.00</td>
</tr>
<tr>
<td>Hours medium group</td>
<td>26,0</td>
<td>17.33</td>
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Total learning time: 150 h

CONTENTS

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<th>Title English</th>
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<tr>
<td><strong>Description:</strong></td>
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<tr>
<td>4.1. Character and Scene</td>
</tr>
<tr>
<td>4.2. Character Definition</td>
</tr>
<tr>
<td>4.3. Character goals</td>
</tr>
<tr>
<td>4.4. Acting beats and Phrasing</td>
</tr>
<tr>
<td>4.5. Phrasing</td>
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</tbody>
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Full-or-part-time: 15h
Practical classes: 6h
Self study : 9h

2. Animals

<table>
<thead>
<tr>
<th>Description:</th>
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<tbody>
<tr>
<td>2.1. Anatomy</td>
</tr>
<tr>
<td>2.2. Animal walking</td>
</tr>
<tr>
<td>2.3. I studied d'animals amb personalitat</td>
</tr>
<tr>
<td>2.4. Monstres i besties fantasàstiques</td>
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</tbody>
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Full-or-part-time: 20h
Theory classes: 4h
Practical classes: 4h
Self study : 12h
3. Introduced d’Interpretació I

Description:
3.1 Being an actor in the monón de l’animació
3.2 I studied bodily emotions
3.3.Postered on stage
3.4 Expressivitat de les mans
3.5 Body Llenguatge

Full-or-part-time: 15h
Theory classes: 4h
Practical classes: 2h
Self study : 9h

4. Action with dialogue I

Description:
4.1 Analysis of dialogues
4.2 Planning
4.3 Action options

Full-or-part-time: 5h
Practical classes: 1h
Guided activities: 1h
Self study : 3h

5. Secondary Action

Description:
5.1 Us and abuse
5.2 Timing in secondary action
5.3 Use of props
5.4 Cliches

Full-or-part-time: 20h
Practical classes: 7h
Guided activities: 1h
Self study : 12h

6. Action with dialogue II

Description:
6.1 Refine
6. 2 Introduction to lip sync and facial animation
6.3 Final polishing

Full-or-part-time: 5h
Theory classes: 1h
Guided activities: 1h
Self study : 3h
7. The eyes
Description:
7.2 The look
7.2 Blinks
7.3 Timing and emotion

Full-or-part-time: 15h
Theory classes: 6h
Self study: 9h

8. The hands
Description:
8.1 Put on
8.2 Acting
8.3 Constraints and contacts

Full-or-part-time: 15h
Practical classes: 6h
Self study: 9h

9. Facial expression
Description:
9.1 Units of the face
9.2 Graphic forms
9.3 Contrast

Full-or-part-time: 15h
Practical classes: 6h
Self study: 9h

10. Motion Capture
Description:
1. Definition of Motion Capture
2. Type of Motion Capture
   2.1 Rotoscopy
   2.2 Origin of rotoscopy
   2.3 Cinema with rotoscopy
3. Photometry
4. The technique applied to:
   4.1 Cinema
   4.2 Video games
5. Animatronic a tool beyond the animation in the cinema

Full-or-part-time: 15h
Practical classes: 6h
Self study: 9h
### ACTIVITIES

#### Action II

**Description:**
There will be a larger action scene. The objective is to apply the knowledge acquired last year and apply it to a character that has more movement.

**Related competencies:**
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- 04 COE. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.
- 05 TEQ. TEAMWORK. Being able to work as a team player, either as a member or as a leader. Contributing to projects pragmatically and responsibly, by reaching commitments in accordance to the resources that are available.

**Full-or-part-time:** 4h
Theory classes: 4h

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#### Pantomime

**Description:**
A problem is posed to the character and will have to be resolved. But it can only be communicated with gestures.

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**Full-or-part-time:** 6h
Theory classes: 6h

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#### Animal

**Description:**
It will be practiced with the anatomy of different animals. And there are some shorts for each of them.

**Related competencies:**
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**Full-or-part-time:** 6h
Self study: 6h
Examen

Full-or-part-time: 2h
Guided activities: 2h

Short Film

Description:
A short little one will be done where it works: the storyboard, script, characters, moods ...

Related competencies:
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CEAAD 3. Master the wide range of professional tools in the sector for developing all kinds of digital content.
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04 COE. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.

Full-or-part-time: 6h
Theory classes: 6h

Acting

Description:
You will have to do an act where the character has a dialogue. Therefore, dialogue, pose, and facial naturality will have to work well.

Related competencies:
CEAAD 7. Apply advanced modelling and animation, post-production and special effects techniques in the development of digital content and/or its inclusion in professional fields of digital art such as the film and video game industries.
CEAAD 3. Master the wide range of professional tools in the sector for developing all kinds of digital content.
04 COE. EFFICIENT ORAL AND WRITTEN COMMUNICATION. Communicating verbally and in writing about learning outcomes, thought-building and decision-making. Taking part in debates about issues related to the own field of specialization.

Full-or-part-time: 6h
Theory classes: 6h

Facial

Description:
There will be different facial expressions of a character

Related competencies:
CEAAD 3. Master the wide range of professional tools in the sector for developing all kinds of digital content.
CEAAD 7. Apply advanced modelling and animation, post-production and special effects techniques in the development of digital content and/or its inclusion in professional fields of digital art such as the film and video game industries.
06 URI. EFFECTIVE USE OF INFORMATION RESOURCES. Managing the acquisition, structure, analysis and display of information from the own field of specialization. Taking a critical stance with regard to the results obtained.

Full-or-part-time: 1h
Theory classes: 1h
GRADING SYSTEM

Practices: 5 practices (AA1 to AA5) with a weighting of 10% of the final grade of each subject.

Control: 1 Partial Exam with a weighting of 15% of the final mark of the subject.

Final project: 1 final project (Activity AA6) with a weighting of 25% of the final mark of the subject.

Participation and attitude of learning: 10% of the mark of the subject.

EXAMINATION RULES.

A part of the exercises can be done during the classes with the teacher of the subject. Students will also have to dedicate independent work time (out of hours) to perform the exercises. To do this, you must follow the instructions specified in the working document.

The exercise once finalized will be deposited in the Virtual Campus in the delivery of the classroom of the section in the corresponding date, will only be taken into account to value those exercises delivered before the 24:00 hours of the deadline.

The documents must be completed, following the instructions, especially regarding the names of the files. The correct management of the documentation provided is an aspect of the competencies to acquire and part of the evaluation.

BIBLIOGRAPHY

Basic:
- Deja, Andreas.. The nine old men: lessons, techniques and inspiration from Disney’s great animators. 2015.
- Jones, A.; Oliff, J.. Thinking animation: bridging the gap between 2D and CG.. Boston: MA: Course Technology,

RESOURCES

Hyperlink:
- Nom recurs. Resource